Advanced Transient Detection System

Surge Protection that Monitors, Measures and Manages

A Web-Based Power Quality Monitor Integrated within the Emerson Network Power 500 and 400 Series Surge Protective Devices

- **Power Quality –** Ability to monitor voltage at every connected panel and track system anomalies such as transients, surges, swells and VTHDs.
- **Real Time Measurements –** Allows over 1000 events/reports to be stored for future analysis.
- **Event Logging –** User configurable alarm thresholds, time/date stamp, duration and magnitude of events.
- **Communications –** Information easily accessed through the Ethernet or MODBUS TCP/RTU communication systems.
- **Embedded Web Page –** Convenient access to present and past data right at the device.
- **System Analysis –** Manage power system with statistical summaries and reporting software.

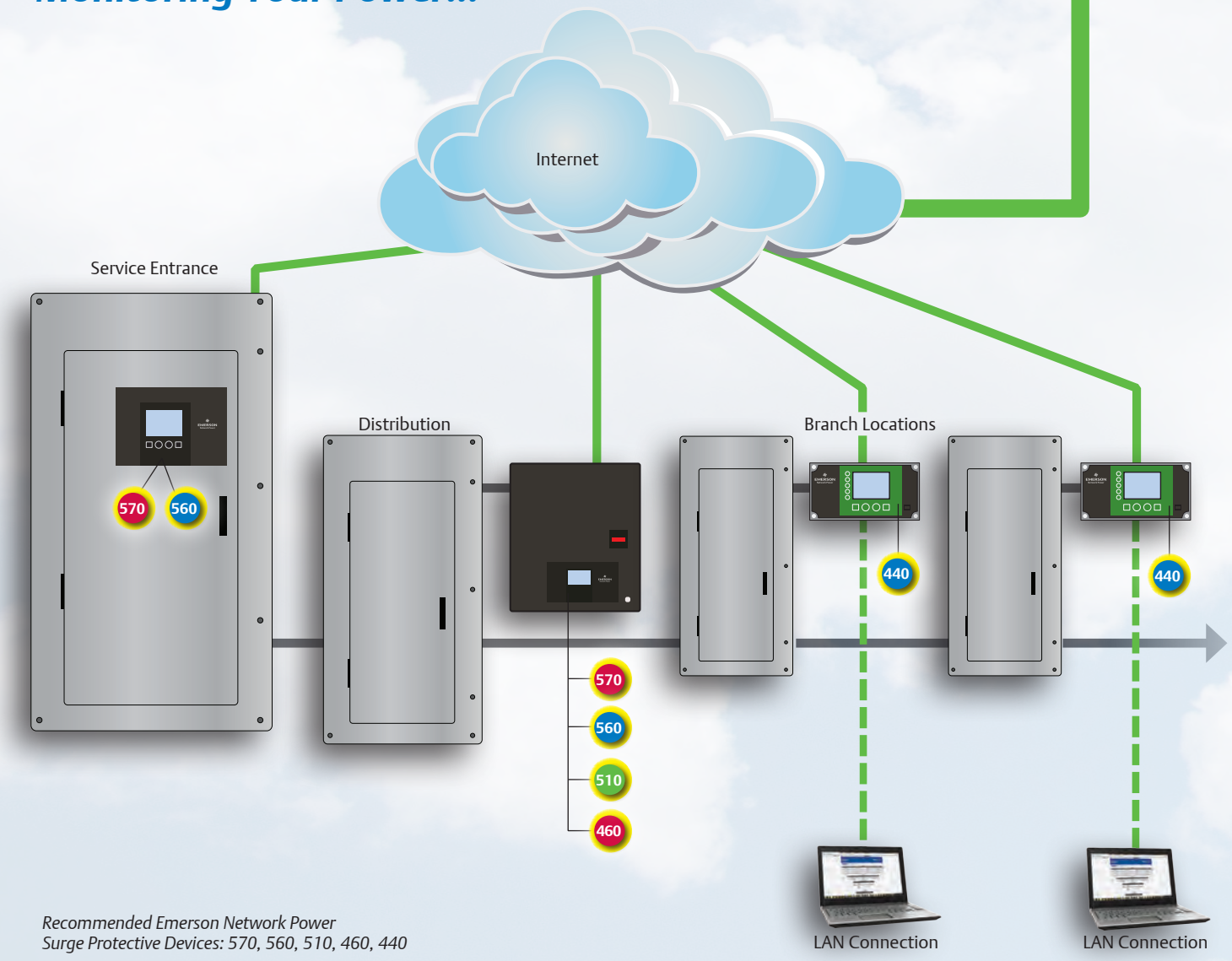
EMERSON
Network Power

Surge Protective Devices Equipped with Advanced Transient Detection and Power Quality Analysis

Emerson Network Power makes it easy to monitor your electrical system by integrating its advanced transient detection and monitoring package within its surge protective devices. The web-based device is integrated within our 500 and 400 series of surge protection products, enabling real-time power quality measurements, logged events, statistical summaries and premium power protection. Understanding the severity, type and timing of the event allows you to analyze trends and ultimately better manage your electrical system.

Network Computer

Our Web-Enabled Approach to Monitoring Your Power...



Recommended Emerson Network Power Surge Protective Devices: 570, 560, 510, 460, 440

Features

Real-Time Power Quality Measurements
Measures and records the magnitude and duration of transient surges (ANSI/IEEE category A, B and C), sags, swells, RMS voltage, crest factor, voltage unbalance, phase loss/outages, dropouts, voltage harmonic distortion and frequency.

Date/Time Stamp and Event Logging
Records and logs device software/firmware updates, alarms, SPD health and magnitude/duration/history of all measured power quality events. On board memory logs up to 1,000 events, data export feature enables long-term storage and reporting of event history.

SPD Health Status
Health of the SPD is continually monitored and percent protection available for each phase recorded and communicated.

User-Friendly Display
Equipped with an easy to read 128x64 pixel LCD display screen. Capacitive touch navigation buttons provide access to over 25 informational data display screens.

Easy Installation
Integrated directly within the 570, 560, 510, 460 or 440 surge protection devices. The *optional* remote monitoring panel allows the user display to be mounted in custom locations.

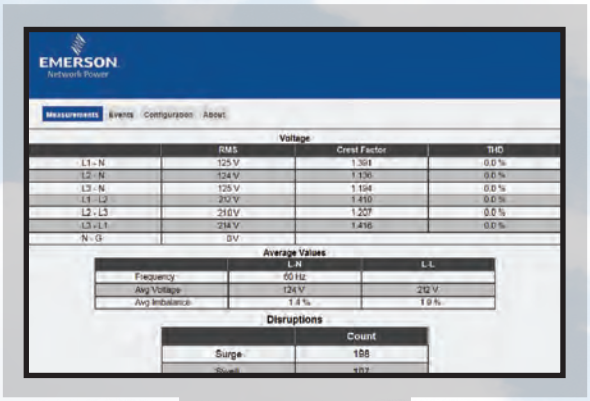
Multiple Alarms Thresholds
Multiple alarm conditions–9 preset triggered alarm conditions with the capability for user-modified threshold. Alarms are configurable as audible, relay, or both providing complete control of event notifications.

Multi-Port Serial and Ethernet Communications
Communicate, view and access data remotely via two RS-485 modbus TCP/RTU serial ports or an ethernet RJ-45 port.

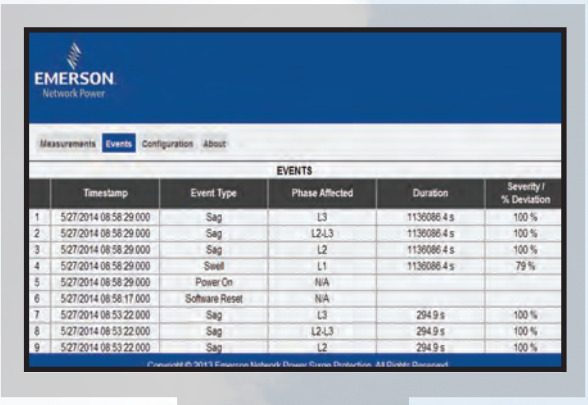
Management Tools
Embedded webpage enables the end user to remotely monitor real time measurements, adjust event thresholds and easily analyze recorded data from several positions throughout a facilities power system, simultaneously from a single location.

System Compatibility
Fully integrates into ASCO 5700 and 5900 family of PowerQuest products.

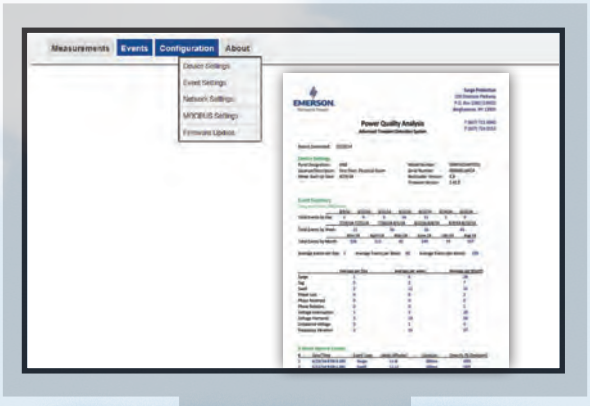
Embedded Webpage



Real-Time Monitoring of Voltages, Event Counts and SPD Health Status



Power Quality Events Measured and Recorded in Detail



Manage Your System with User Configurable Thresholds and Power Quality Reporting

Modular device, available models are: 570/560/510 and 460.

Non-modular device, 440 model only.

Available with remote monitoring panel for custom installations. Models include: 570/560

General Specifications	
Voltage	Phase A, B, & C
Accuracy	±1%
Range	0-600V
Average, Unbalance, Crest Factor	Standard
Frequency	Per Phase + Total
Accuracy	±1%
Range	45-67Hz
VTHD	L-N, L-L
Range	850 Hz
Harmonics	L-N, L-L
Range	Fundamental - 13th
RMS	±1%
SPD Health Status	Percent Remaining
I/O	Standard
Relay Outputs	1:2 Form-C
RJ-45 Port	Ethernet
Terminals (#24-#14)	RS-485 Communication
Events	Power Quality and System
Event Logging	1000+ Events
Surge, Sag, Swell, Phase Loss/Outage, Temporary Over Voltage (TOV), Voltage Interruption/Dropout, Neutral Bond, Voltage Harmonics (VTHD), Over/Under Frequency, Protection Failure	Standard
Date/Time Stamp with Duration/Magnitude	Standard - All events
Surge Counter, Sag Counter, Swell Counter, w/reset	Standard
Display	LCD 128x64
Communications	RS-485, MODBUS TCP/RTU, Ethernet, SNMP, SMTP, Form C
Embedded Webpage	Standard

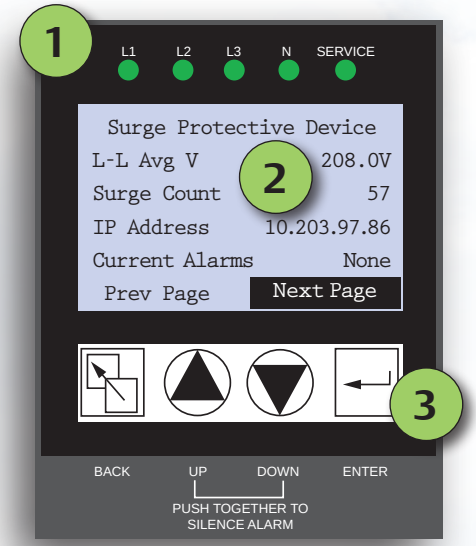
Ordering Information

Example Model Number: **5 7 0 x x x x x x T x x S**

Available On:	Model Number	Monitoring	Additional Options/Accessories
570 SPD	**X** Indicates Standard Model Number Configuration	**T** Indicates Advanced Transient Detection System	**S**=Standard **-or-** **X**=Additional Options/Accessories* (*remote panel)
560 SPD			
510 SPD			
460 SPD			
440 SPD			

*Consult factory for additional source configurations, surge ratings, monitoring options, enclosure ratings, etc.

Advanced Transient Detection Interface

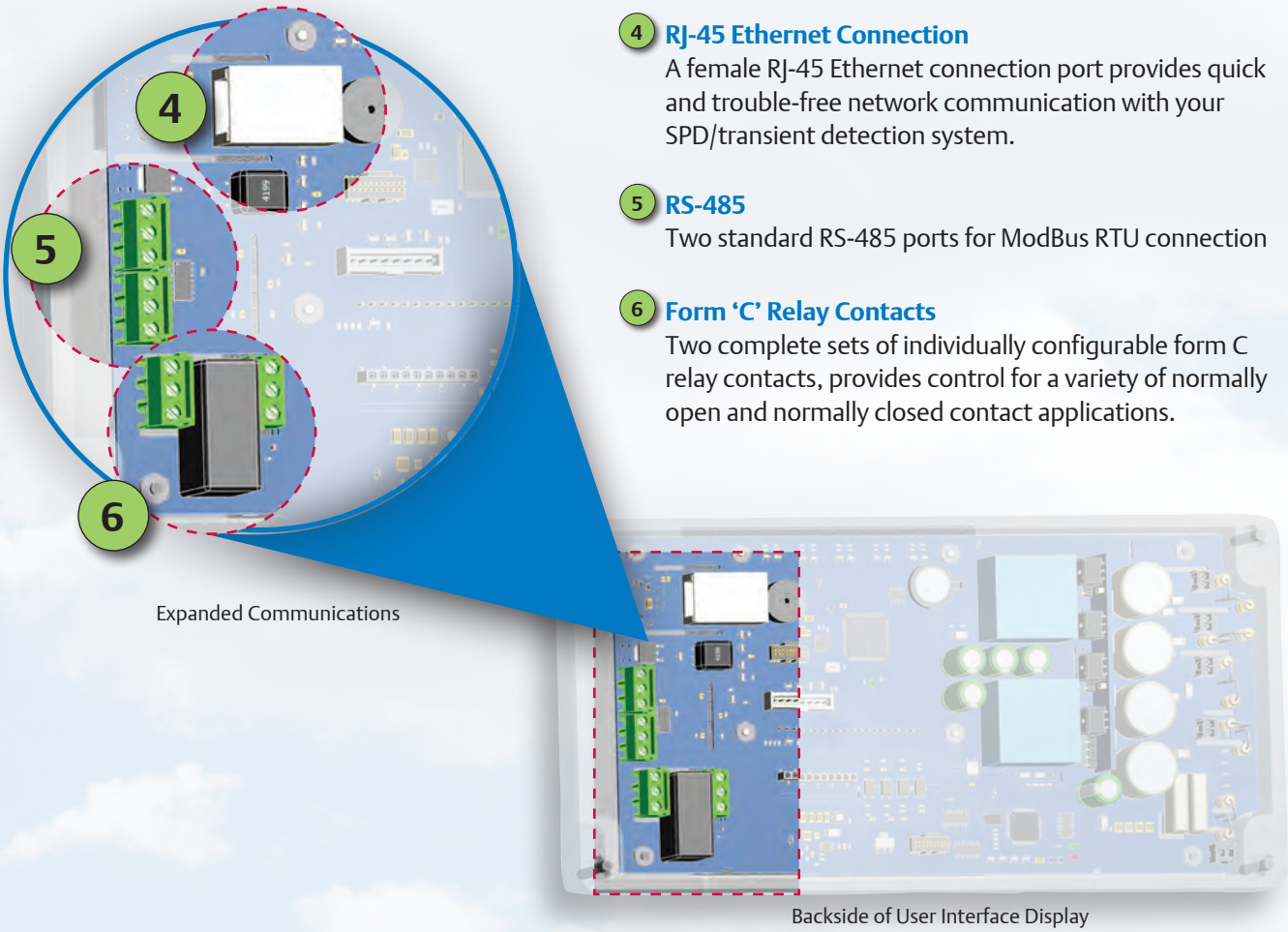


(Front of User Interface Display)

1 Protection Status LED's
Red, green and orange *(reduced protection)* LEDs provide protection status indication for each *phase, neutral and service.*

2 LCD Display Screen
The advanced transient detection monitoring feature provides 25+ individual and selectable display screens. Each screen provides real-time information concerning the existing power quality, past recorded events and networking.

3 Display Navigation Buttons
Capacitive touch buttons are utilized to maneuver from screen to screen.



Expanded Communications

4 RJ-45 Ethernet Connection
A female RJ-45 Ethernet connection port provides quick and trouble-free network communication with your SPD/transient detection system.

5 RS-485
Two standard RS-485 ports for ModBus RTU connection

6 Form 'C' Relay Contacts
Two complete sets of individually configurable form C relay contacts, provides control for a variety of normally open and normally closed contact applications.

Backside of User Interface Display

For further assistance in choosing the proper surge protective devices for your facility, contact us at:
800-288-6169 ext. 3 (U.S. and Canada Only)
607-721-8840 ext. 3 (Outside U.S.)
or
Email: SurgeTech@Emerson.com

We're here to help!

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